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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,140	03/12/2004	Chris E. DiFrancesco	54673-297873	2231
23342 7590 06/17/2009 KILPATRICK STOCKTON LLP 1001 WEST FOURTH STREET WINSTON-SALEM, NC 27101				
EXAMINER DUONG, THANH P				
ART UNIT 1797		PAPER NUMBER		
MAIL DATE 06/17/2009		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/801,140

**Applicant(s)**

DIFRANCESCO ET AL.

**Examiner**

TOM P. DUONG

**Art Unit**

1797

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-6,8-14,17,19-36,38-77 and 83 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-6, 8-14, 17, 19-36, 38-77, and 83 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's remarks and amendments filed on June 3, 2009 have been carefully considered. Claims 8 and 38 have been amended. Claims 3, 7, 15-16, 18, 37, and 78-82 have been canceled. Claims 1-2, 4-6, 8-14, 17, 19-36, 38-77, and 83 are pending in this application.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2, 4-6, 8-14, 17, 19-36, 38-77, and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 631 805 (hereinafter EP '805) in view of Machida et al. (5,494,881) and Dettling et al. (4,335,023).

EP '805 discloses a honeycomb carrier with thin wall comprising inorganic oxide (titanium oxide) in amount of at least 50% by weight and at least one catalytically active component on the carrier of 1.0-30% by weight (page 3, lines 30-45); and a wall thickness of less than 0.22mm (page 3, lines 35-38); and a compressive strength of at least 1.5 kg/cm<sup>2</sup> (Table 3).

EP '805 essentially discloses the honeycomb with the same structural body of the instant claims but is silent with respect to the hydraulic diameter and macroporosity.

However, Dettling et al. teaches a honeycomb catalytic body with outer peripheral wall and a plurality of inner partition walls (Figs 1A-1C) and the walls contain a high percentage of inorganic oxide (alumina) and a catalytically active component (Col. 7, lines 30-36) and the porosity of such structure is within the range of 0.001 to 0.01 m<sup>2</sup>/g with diameter ranging from 2000-20000 Angstrom. Such configuration provides a high degree of accessible catalyst surface to increase the catalytic activity (Col. 1, lines 44-Col. 2, line 21).

Machida et al. also discloses a ceramic honeycomb catalytic body with outer peripheral wall (11) and plurality of inner partition walls (12) containing inorganic oxide having characteristics of a thin wall structure, high compressive strength, high cell density, low heat capacity, and high degree of OFA (open frontal area) and a catalytically active component (Col. 1-Col. 4) and hydraulic diameter (Col. 12, lines 1-10).

Machida further discloses that one of ordinary skill in the art, thru routine optimization, can control and obtain these mechanical properties thru a series of optimized formulae (1) and (2) (Col. 2, lines 45-49).

Thus, it would have been obvious in view of Dettling and Machida et al. to one having ordinary skill in the art to fabricate the device of EP '805 with a high degree of porosity as taught by Dettling et al. to increase the catalytic activity and the desirable mechanical properties for the honeycomb body can be optimized thru a series of optimized formulae as taught by Machida.

Note, the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart*, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original).

In addition, some of the properties of the instant claims are not disclosed, it is well settled that when a claimed composition appears to be substantially the same as a

composition disclosed in the prior art, the burden is properly upon the applicant to prove by way of tangible evidence that the prior art composition does not necessarily possess characteristics attributed to the claimed composition. *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Circ. 1990); *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980); *In re Swinehart*, 439 F.2d 2109, 169 USPQ 226 (CCPA 1971).

With respect to the catalyst body having a defect level of 0.3% or less, it would have been an obvious matter of design choice to one having ordinary skill in the art to fabricate the device of the applied references with a small defect level to provide a uniform and quality product as required by quality control.

### ***Double Patenting***

Claims 1-2, 4-6, 8-14, 17, 19-36, 38-77, and 83 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-28 of copending Application No. 11/122,261. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application essentially claims substantially the same subject matter as the instant application but is silent with respect to the defect level. However, the copending application discloses all structural features of the instant application and further discloses similar mechanical properties as the instant application and thus, it would appear obvious that the copending application provide a honeycomb structure with a small defect level.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

Applicant's arguments filed 6/3/09 have been fully considered but they are not persuasive.

Applicants argued in several places of the Remarks that EP '805 discloses a catalyst body formed from an extruded catalytically active composition and the teaching references Dettling and Machida are derived from and dependent on the monolithic non-catalytic supports. One of ordinary skill in the art cannot rely upon a monolithic non-catalytic support (Dettling and Machida) to provide advantageous mechanical properties, such as sufficient macroporosity and hydraulic diameter. As a result, one of skill in the art would not have a reasonable expectation of success of incorporating mechanical properties only provided by monolithic non-catalytic supports into a catalytic body precluding the use of such supports.

Examiner respectfully disagrees. The applied references (EP '805, Dettling, and Machida) disclose a ceramic honeycomb catalytic body. It would have been obvious in view of Dettling and Machida et al. to one having ordinary skill in the art to fabricate the device of EP '805 with a high degree of porosity as taught by Dettling et al. to increase the catalytic activity and the desirable mechanical properties for the honeycomb body can be optimized thru a series of optimized formulae as taught by Machida.

Note, the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also *In re Swinehart*, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971); *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original).

In addition, some of the properties of the instant claims are not disclosed, it is well settled that when a claimed composition appears to be substantially the same as a



composition disclosed in the prior art, the burden is properly upon the applicant to prove by way of tangible evidence that the prior art composition does not necessarily possess characteristics attributed to the claimed composition. *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Circ. 1990); *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980); *In re Swinehart*, 439 F.2d 2109, 169 USPQ 226 (CCPA 1971).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOM P. DUONG whose telephone number is (571)272-2794. The examiner can normally be reached on 8:00AM - 4:30PM (IFP). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on (571) 272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tom P Duong/  
Primary Examiner, Art Unit 1797